APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/757,297	01/14/2004	Jon Barry	2003-0087	4464

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Mr. S.H. Dworetsky
AT&T Corp.
PO Box 4110
Middletown, NJ 07748

EXAMINER
GOLD, AVI M

ART UNIT	PAPER NUMBER
2157	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
	10/757,297	BARRY ET AL.
Office Action Summary	Examiner	Art Unit	
	AVI GOLD	2157	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS,
WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>16 January 2004</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
   closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-21</u> is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-21</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>14 January 2004</u> is/are: a)☐ accepted or b)☒ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☐ All   b)☐ Some * c)☐ None of:

   1.☐ Certified copies of the priority documents have been received.

   2.☐ Certified copies of the priority documents have been received in Application No. _____.

   3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
      application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)   4)☐ Interview Summary (PTO-413)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)   Paper No(s)/Mail Date. _____.
3)☒ Information Disclosure Statement(s) (PTO/SB/08)   5)☐ Notice of Informal Patent Application
   Paper No(s)/Mail Date <u>4/15/04, 2/22/07</u>.   6)☐ Other: _____.

U.S. Patent and Trademark Office
PTOL-326 (Rev. 08-06)   **Office Action Summary**   Part of Paper No./Mail Date 20080919

DETAILED ACTION

This action is responsive to the application filed January 14, 2004. Claims 1-21
are pending. Claims 1-21 represent a method and system for measuring remote-
access VPN quality of service.

Drawings

1.   The informal drawings are not of sufficient quality to permit examination.
Accordingly, replacement drawing sheets in compliance with 37 CFR 1.121(d) are
required in reply to this Office action. The replacement sheet(s) should be labeled
"Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct
any portion of the drawing figures. If the changes are not accepted by the examiner, the
applicant will be notified and informed of any required corrective action in the next Office
action.

Applicant is given a TWO MONTH time period to submit new drawings in
compliance with 37 CFR 1.81. Extensions of time may be obtained under the provisions
of 37 CFR 1.136(a). Failure to timely submit replacement drawing sheets will result in
ABANDONMENT of the application.

Claim Rejections - 35 USC § 101

2.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 10 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 10 teaches a VPN client node, which is implemented on software, (paragraphs 5 and 6, specification). The specification does not point to a hardware or other statutory embodiment for the node. The idea that the node can be embodied fully in software makes the system software per se and non-statutory.

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4.   Claims 1-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schuster et al., U.S. Patent No. 6,363,053, further in view of Weldon et al., U.S. Patent No. 2003/0198235.

Schuster teaches the invention substantially as claimed including a method and apparatus for testing conformance to server level agreements in networks (see abstract).

As to claim 1, Shuster teaches a method of measuring the quality of service provided to a remote-access user of a virtual private network, said virtual private network comprising a plurality of private network locations interconnected through a public data network, with the remote-access user including a VPN client device directly connected to said public data network, the method comprising the steps of:

a) providing measurement software at a VPN client location (col. 11, lines 45-54, VPN Quality of Service monitoring administered);

b) collecting, at the VPN client location, VPN performance information (col. 12, lines 26-34, conformance testing method);

e) analyzing the stored VPN performance information (col. 12, lines 26-34, comparison of collected QoS characteristics to QoS characteristics in the SLA); and

f) generating a report measuring the quality of service as defined by the analysis of the stored service information (col. 12, lines 32-37, a report generated indicating the level of conformance to the SLA).

Schuster does not explicitly teach c) uploading the collected VPN performance information to a centralized server connected between the VPN and said public data network and d) filtering, normalizing and storing the uploaded VPN performance information at the centralized server.

However, Weldon teaches collection of service level agreement statistics in communication networks and especially VPNs (see abstract). Weldon teaches the use of aggregating probe data and uploading it to a server (paragraph 50).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Schuster in view of Weldon to upload the collected VPN performance information to a centralized server connected between the VPN and said public data network and filtering, normalizing and storing the uploaded VPN performance information at the centralized server. One would be motivated to do so because it allows for convenient review by customers of the VPN (paragraph 50).

Regarding claim 2, Weldon teaches the method as defined in claim 1 wherein the method further comprises the step of performing any required VPN service maintenance actions to correct communication problems included in the generated report (fig. 6, paragraphs 64, 65).

Regarding claim 3, Schuster teaches the method as defined in claim 1 wherein step b) comprises the collection of: the date and time of each VPN connection attempt, the identity of the VPN server to which the VPN client is attempting to connect, any connection failure code, and disconnection reason code (col. 13, lines 17-29).

Regarding claim 4, Weldon teaches the method as defined in claim 1 wherein step b) comprises the collection of information related to VPN accessibility, VPN sustainability and VPN availability (paragraph 36).

Regarding claim 5, Schuster teaches the method as defined in claim 1 wherein the method is utilized for a plurality of separate remote-access VPN client devices, the steps of analyzing and generating then based on data collected from the plurality of separate remote-access VPN client devices (col. 11, lines 45-54).

Regarding claim 6, Schuster teaches the method as defined in claim 5 wherein at least one remote-access VPN client device comprises a persistent location VPN client device (col. 11, lines 45-58).

Regarding claim 7, Schuster teaches the method as defined in claim 5 wherein at least one remote-access VPN client device comprises a transient location VPN client device (col. 11, lines 45-58).

Regarding claim 8, Schuster teaches the method as defined in claim 5 wherein step f) includes the generation of an aggregate report based on the performance of the plurality of separate remote-access VPN client devices (col. 12, lines 26-37).

Regarding claim 9, Schuster and Weldon teach the method as defined in claim 1 wherein the collecting of step b) further comprises collecting information such as: link type, session duration, IP port identity, type of VPN protocol, type of VPN encryption, identity of network nodes traversed between the VPN client and VPN server (Schuster, col. 12, 13, Weldon, paragraphs 36-50).

As to claim 10, Schuster teaches a VPN client node for providing access to a VPN remotely located from a user, the VPN client node comprising

encryption/decryption elements for providing secure communication between the remotely located VPN client and a public data network, said public data network also coupled to said VPN (col. 11, lines 45-61); and

a quality measurement element associated with said VPN client node, said quality measurement element for collecting VPN client performance information (col. 12, lines 26-34).

Schuster fails to teach the limitation further including uploading the collected information to a server located in the data communication network.

However, Weldon teaches the use of aggregating probe data and uploading it to a server (paragraph 50).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Schuster in view of Weldon to upload the collected information to a server located in the data communication network. One would be motivated to do so because it allows for convenient review by customers of the VPN (paragraph 50).

Regarding claim 11, Schuster teaches a VPN client node as defined in claim 10 wherein the node is a persistent location, including at least one client user device and a VPN gateway coupling the at least one client node to the data network, wherein the

quality measurement element is located at the VPN gateway (col. 11, line 45 – col. 12, line 25).

Regarding claim 12, Schuster teaches a VPN client node as defined in claim 10 wherein the node is a transient, on-demand location with the quality measurement element co-located with the VPN client device (col. 11, line 45 – col. 12, line 25).

Regarding claim 14, Weldon teaches a VPN client node as defined in claim 10 wherein said client node further comprises an upload feature for transmitting the VPN service information collected by the quality measurement element to a centralized server within the VPN (paragraph 50).

Regarding claim 18, Schuster teaches a VPN centralized network server as defined in claim 16 wherein the server is capable of receiving connect/disconnect information from a plurality of separately located remote-access VPN client devices (col. 13, lines 15-29).

Claims 13, 15-17, and 19-21 do not teach or define any new limitations above claims 1, 3, 4, 6-9 and therefore are rejected for similar reasons.

Conclusion

5.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Pat. Pub. No. 2005/0088977 to Roch et al., because it discloses a dynamic VPN tunnel quality of service treatment.

U.S. Pat. Pub. No. 2005/0193103 to Drabik, because it discloses a method and apparatus for automatic configuration and management of a virtual private network.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to AVI GOLD whose telephone number is (571)272-4002. The examiner can normally be reached on M-F 8:00-5:30 (1st Friday Off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on 571-272-4001. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

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Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/A. G./
Examiner, Art Unit 2157

/Ario Etienne/
Supervisory Patent Examiner, Art Unit 2157